

Research and application of mobile terminal image acquisition and live video technology in smart water

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Objectives

With the rapid development of modern Internet and modern information technology, as well as the continuous improvement of the processing capacity of intelligent mobile terminal equipment, Beijing Smart Water has begun to move from a computer-based software platform to an intelligent mobile terminal, accompanied by the rapid development of multimedia technology and the rapid development of live video technology, The traditional video monitoring real-time communication system has been unable to meet the growing application needs of Beijing Water. This time, around the planning and design of Beijing Smart Water 1.0, a research on the key technologies of emergency command and water resource scheduling based on mobile terminal image acquisition and video live broadcast technology is proposed.

Methods

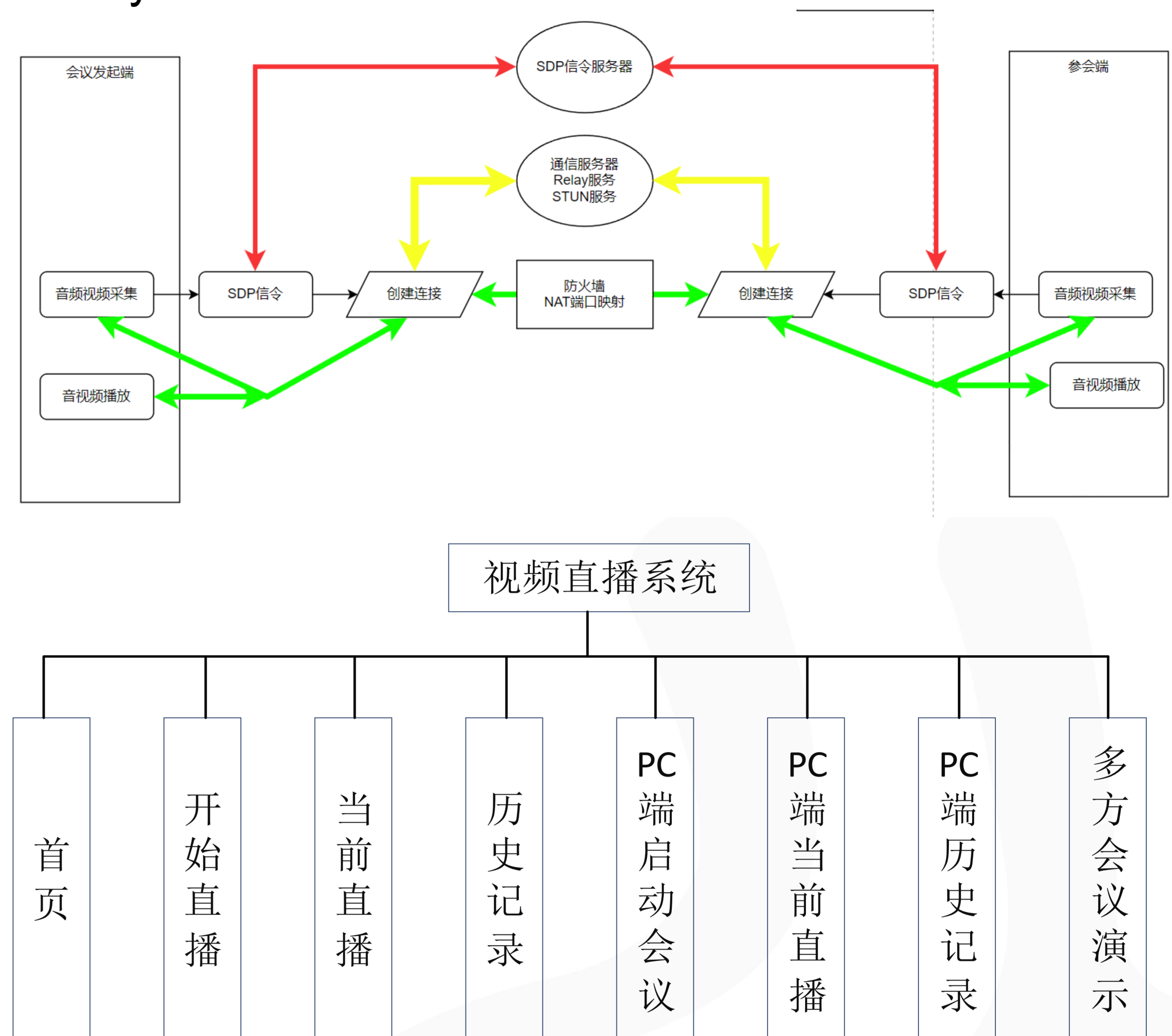
The system adopts C/S mode, and the mobile client is Android mobile phone. The process of video image acquisition technology of mobile terminal can be divided into acquisition, coding, streaming, streaming, decoding, playing, etc. In this process, it is necessary to fuse and synchronize the audio stream and video stream, and distribute them to the terminal through different protocols after encoding and decoding, and the terminal will play the player. Through the real-time communication technology based on WebRTC, the real-time transmission of various multimedia information streams can be realized to achieve the effect of interactive live broadcast.

Results

It realizes the image acquisition technology of mobile terminals, including acquisition, encoding, streaming, decoding and playback etc., and distributes them to the terminal for playback through fusion and synchronization of audio and video streams, and distributes them to the terminal for playback through different protocols.

Through the real-time communication technology based on WebRTC, the real-time transmission of various multimedia information streams is realized, so as to realize the interactive li broadcast effect.

It solves the shortcomings of the traditional video surveillance system in water emergency command, and improves the reliability and stability of the video surveillance system.



Conclusions

The above key technologies can solve the disadvantages of the traditional video monitoring system in the water emergency situation. It provides efficient technical support for scientific scheduling of managers. emergency command, improve the reliability and stability of the video monitoring system, and enable the management unit to quickly, accurately and real-time understand, It improves the reliability and stability of the video monitoring system and enables the management unit to quickly, accurately and real-time understand the on-site emergency situation. It provides efficient technical support for scientific scheduling of managers.

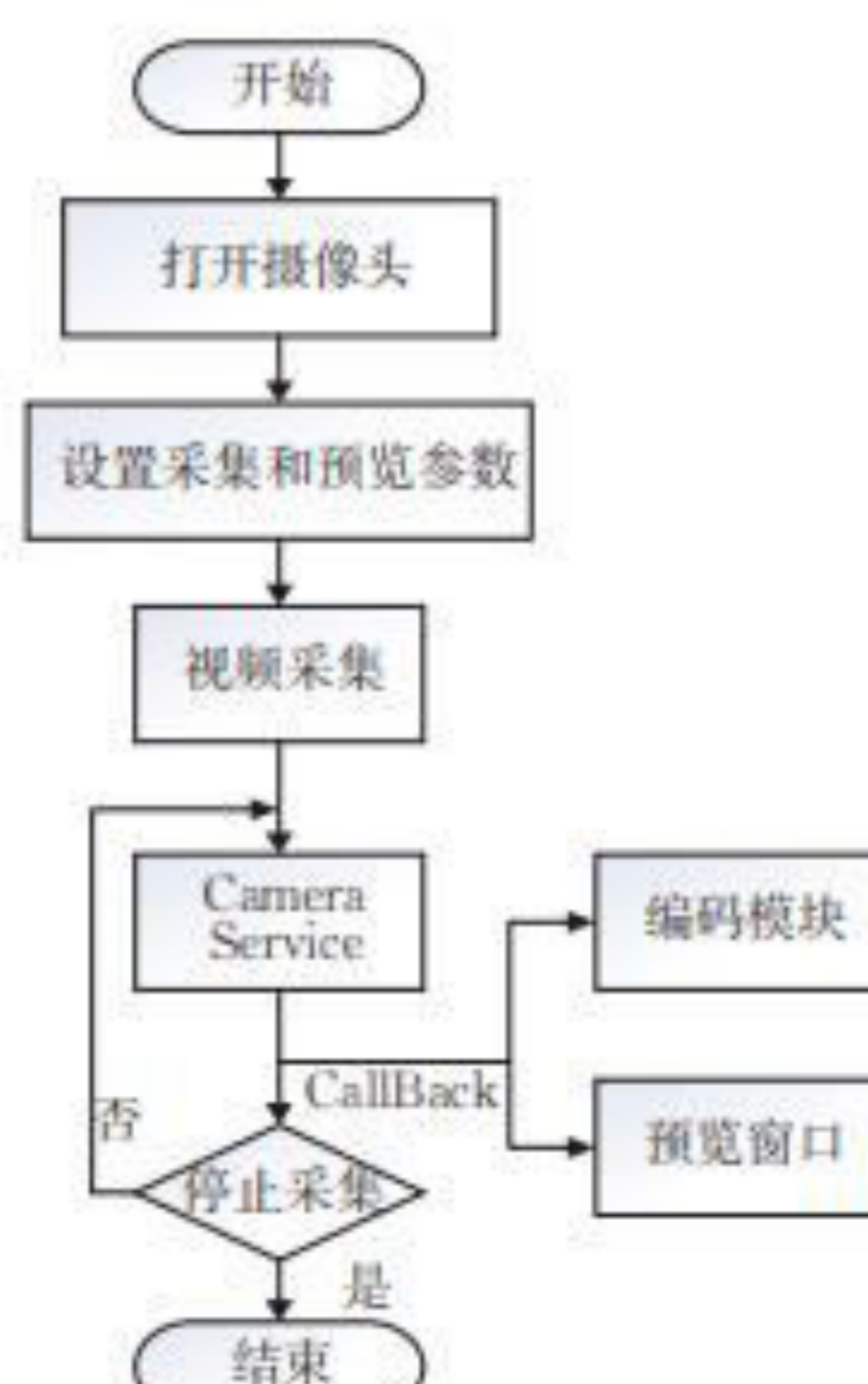


图2 视频采集模块流程图

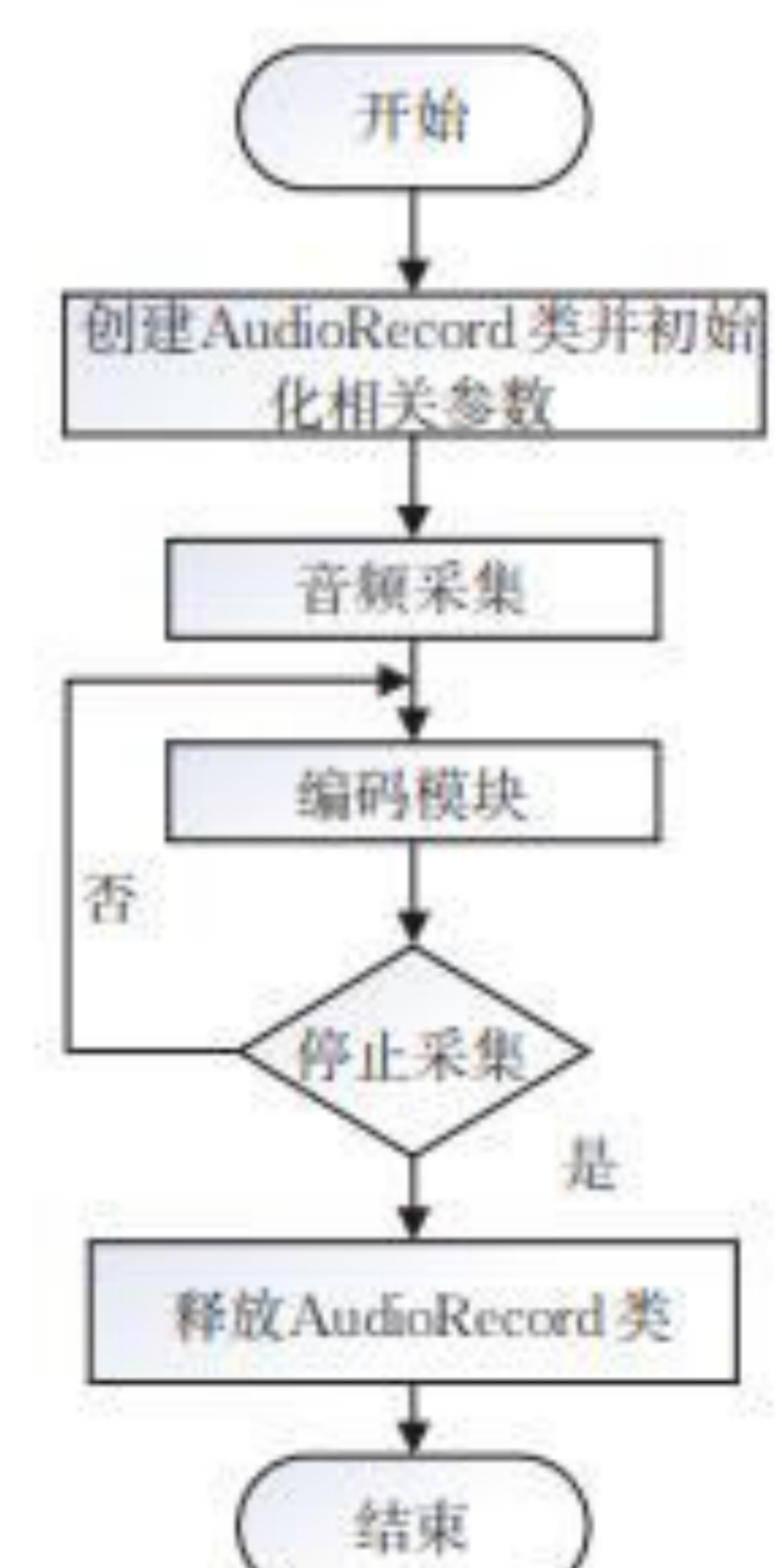


图3 音频采集模块流程图